

2014 Preventive Roof/Rib Outreach Program

Points to Remember

Improvements in roof control technology have led to a significant reduction in roof fall accidents and fatalities. Despite these gains, roof and rib falls continue to be a leading cause of accidents and injuries in underground coal mines. In 2013, 265 miners were injured from roof and rib falls. Nearly half of the accidents (124) occurred during the four-month period of June through September. Roof fall injury rates are highest in the summer months due to the deterioration of roof rock resulting from higher humidity in the air.

Ways to lessen the hazard include:

- Be aware that the roof fall and injury rates are highest in the summer months.
- Focus examinations during summer months to detect roof that has weathered because of humid air.
- Communicate with the foreman and other miners when adverse roof/rib conditions are observed.
- Follow the approved roof control plan. The roof control plan contains the minimum support system for controlling the roof; and changing conditions may require installation of supplemental support.
- Use proper skin control, such as straps, pizza pans or screen wire mesh, where loose roof or ribs may be encountered.
- Scale loose roof and ribs in the face and outby travelways.
- Be aware and recognize that rocks composed of clay and other moisture sensitive materials are prone to weathering when exposed to humid air.
- When the roof is composed of rocks that are prone to weathering use more surface control coverage during installation of roof support.
- Just because your mine's roof didn't have moisture related problems in the past doesn't mean you're in the clear—some roof problems only appear after repeated cycles of wetting and drying.
- Keep your mind on the task being performed – avoid distractions.

Ways mine management can lessen the hazard include:

- Make available the proper equipment and support materials for correcting adverse roof/rib conditions.
- When possible, maintain a mining horizon that results in an immediate roof consisting of material (coal or rock) that is nonreactive to moisture.
- Monitor roof fall accidents and injuries to evaluate the adequacy of the roof control plan.
- Make revisions to the roof control plan when conditions indicate the plan is not adequate for supporting the roof and ribs.